
FOLIO

Sure Hands Moving Technology Transfer Light From Under Bushel

"The University of Alberta is moving actively to increase its interaction with industry. This move is part of a general approach to ensure that the University's research is available and that industry can become involved with the University in effective ways." So begins a report produced recently by the Office of Research Services to outline its commitment to technology transfer as part of the University research program.

There is a story behind the phrase "increase its interaction with industry." One fine day Vice-President (Research) Kaplan approached the Hon. Hugh Planche, Minister of Economic Development, with the suggestion that someone from that office be seconded to Research Services to explore ways and means of strengthening the bond between the University and the industrial sector. Discussion ensued and in mid-September Jim Budd, Manager of Economic Development's High Technology Section, crossed the North Saskatchewan River and made his way to the Research Services Office in University Hall. He has been negotiating the trip four afternoons per week (Monday through Thursday) and will continue to do so for the duration of the six-month trial period. The "first look" position, funded largely by Economic Development, will then be evaluated and recommendations as to increasing its effectiveness will be made.

Mr. Budd, whose background is in product development, that is, working directly with manufacturers, "suspects" that a full-time position will come about, one that will virtually pay for itself because of financial arrangements with industry.

He has spent much of his time conversing with researchers ("you have to

understand the technology, at least in concept") and giving thought to the securing of patents for new processes and methods of carrying on to the licensing of particular technologies.

The job requires much patience and a reasonable degree of tact and persuasion, he says. It really is a mammoth undertaking because, while we seem to hear a fair amount about people in Engineering, Agriculture and Medicine, the venture is open to all researchers on campus.

There is a vast amount of research knowledge here that has not been brought to the attention of the private sector, Mr. Budd says. One of the specific projects assigned him is the structuring of a seminar (13 December) on the application of ergonomics to industry. S. Kumar, Professor of Physical Therapy, has developed a number of commercial contacts and the seminar will try to build upon that. Identifying the benefits to industry and the direct results that industry could expect, possible savings, and the union and management relationship are among the topics to be discussed at the seminar. Some investigative work and testing will be carried out in Dr. Kumar's laboratory.

Mr. Budd is also concerning himself with increasing the utilization of highly specialized pieces of equipment, for example, the microsurface lathe in Electrical Engineering. It is the only piece of equipment of its kind in the country and should be used more by off campus firms, he told *Folio*.

Another project involves the bid by the Department of Chemistry to acquire a surface chemistry lab with a mass spectrometer. The price tag is \$800,000 plus and Mr. Budd is contacting companies that might be inter-

ested in footing a chunk of the bill. This is delicate work because the here and now has to be replaced by calculated projections and estimates. There are few precedents on which to build a case. He is, however, pleased by the response from people in industry.

A significant amount of contract research has occurred at this University in recent years but it's time to take a "one window approach" to show research thrusts to, in the main, small and medium-sized companies, that is, those that don't have their own research staff. Many firms simply don't realize that they can enter into negotiations with the University, he says.

Each university in Canada is exploring in some way the matter of heightening its involvement with industry. "We are tapping all sources to see who is doing what and we will likely tailor some ideas to the local economic climate."

There has been something of an antagonistic relationship between universities, industry and government in the past but a high degree of cooperation is required now, Mr. Budd says.

As noted in the Research Services' report, companies and organizations can benefit greatly from interaction

Continued on page two

Protein Group Granted \$6 Million by Medical Research Council

The single largest research grant to our University has gone to the MRC Group in Protein Structure and Function. MRC President Pierre Bois and President Horowitz affixed their signatures to the agreement on 6 December.

The agreement is for the next five years. The Protein Group, which is directed by Cyril Kay and Lawrence Smillie, has received funding from the MRC for a number of years. The latest grant will be used primarily to cover operating costs although close to \$1 million will go toward equipment. The Group's research involves the study of the structure and function of enzymes, muscle proteins and protein-nucleic acid interactions, all of which are fundamental to the life process. In funding this research, MRC recognizes the importance of understanding the normal life process, which in turn

leads to an understanding of the diseased state.

Prior to the signing, Dr. Bois and a colleague, L.E. McLeod, met with J. G. Kaplan, Vice-President (Research); Douglas Wilson, Dean of Medicine; and Erwin Diener, Chairman of the Department of Immunology, to discuss medical research on campus and the funding of various projects. A "Brown Bag Lunch" precipitated frank and open dialogue between the distinguished guests and medical researchers concerning Canada's medical research policies and funding. After a tour of the Protein Group's laboratories and the 3:30 p.m. signing, Drs. Bois and McLeod met with Deans and Associate Deans of Research in the Faculties of Dentistry, Home Economics, Nursing, Pharmacy and Physical Education and Recreation. □

with researchers on campus. "With a large number of scientists engaged in research, the breadth of topics under investigation covers an area of interest for almost any company. Researchers can also get into new projects with support and encouragement of industry."

The University has research projects connected to Alberta's current economic base in agriculture and oil and gas; to resource areas of future significance in forestry and coal; to new product development in fields like pharmaceuticals and engineering de-

sign technology; and to the application of advanced technology to existing industrial systems through micro-electronics.

Contractual agreements have been set with many organizations during the past year, including Alberta Hospitals and Medical Care, Alberta Energy and Natural Resources, Atomic Energy of Canada Limited, Alberta Alcoholism and Drug Abuse Commission, Upjohn Company of Canada, Parks Canada, Indian and Northern Affairs Canada, Dene Nation, Suncor Incorporated, National Museums of

Canada, Bristol-Myers Company and Health and Welfare Canada.

Research Services aims to generate a minimum of 50 technology transfer projects involving the University and industry over the next five years. Among the prospects are developments in agricultural engineering, food science and forest science; new mechanical projects like acoustics; and continued developments in civil-geotechnical fields and electrical engineering with lasers fibre-optics, microchips, and related fields.

Technology transfer is accomplished

by such means as publication of research results either in the scientific literature or in special reports submitted to sponsoring companies, by patents arising out of research projects, by research centres or institutes dedicated to specific areas of interest (Centre for Frontier Engineering Research, Alberta Microelectronic Centre); by a University business, such as Chembiomed Limited; and by private consulting by University researchers. □

Meanwhile, at Other Universities...

Concordia University's Board of Governors has formed a seven-member task force to find ways of trimming an additional \$3 million from the university's \$95 million operating budget. The cuts will be spread over a 12-month period. All units within the university will be subject to the imminent budget review.

According to Graham Martin, Vice-Rector (Administration and Finance), the planned cutbacks are a result of the decision by Education Minister Yves Berubé to delay implementation of a revised funding formula for Québec universities. The formula, it is

said, would have contributed in a substantial way toward easing Concordia's financial plight.

The University of Alberta is by no means the only university to wait a while for a building to be completed. *The University of Winnipeg's* new Athletic Centre opened recently, 13 years after serious planning for the building began. Still, the delay wasn't all bad. As President Robin Farquhar said at the opening, "In a certain masochistic sense, the long wait was advantageous, because it gave us time to refine our design, to perfect the concept, and to ensure that what we have is uniquely appropriate to this particular university."

A number of engineering professors at *McMaster University* are acting as advisors for the 1812 schooner recovery plan. The intent is to raise two War of 1812 armed schooners which

have rested on the bottom of Lake Ontario for these many years. The *Scourge* and *The Hamilton* were merchant vessels on Lake Ontario before the War of 1812. They were converted into armed warships by the United States Navy. A squall on 8 August 1813 caused the two ships to founder about 10 km off Port Dalhousie with some loss of life. The wooden ships have been well preserved because of the low temperature at a depth of 91 m and the undisturbed water.

It is hoped that the ships can be raised to the surface by 1990 and placed in a museum.

The University of Calgary has just opened a \$5 million research unit dedicated to finding a cure for diabetes, the third deadliest disease in North America. Daniel A.K. Roncari, professor and head of the unit, expressed confidence that "in the next five to 10 years we will have discovered a cure."

The Malahat Review, the *University of Victoria's* nationally and internationally-recognized literary quarterly, is up against it. Stephen Scobie, Professor of English who joined the faculty after spending a number of years at our University, says the *Review* is one of UVic's major contributions to Canadian culture, one of the reasons why UVic is known across Canada in literary circles. The university has been forced to decrease its support of the publication and so a subscription drive will be launched and other sources of funds will be looked at.

The Malahat Review was first published 17 years ago. Currently, there are 150 American university libraries and 45 foreign-listed universities on its subscription list. It also gets a "very high" submission list from overseas, as well as translations of foreign poetry. □

FOLIO

Volume Twenty-one
Number Eighteen

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The Office of Community Relations
produces Folio on a regular basis for the
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acknowledgment.

ISSN 0015-5764

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A CHILD
A CHANCE
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General Faculties Council

During the question period of the 26 November meeting of GFC, David Lubell, Anthropology, questioned the recently announced internal job freeze, and suggested that Deans and Department Chairmen should be allowed to make decisions where cuts are concerned. In response to his query, Chairman Horowitz explained that more positions will have to be cut than last year, but that the freeze will allow those employees who have lost their jobs due to cutbacks to fill vacant positions. Internal transfers will not be allowed.

Following the welcoming of new members Kenneth Bosman, Colleen Rathwell and Kathleen Brett, Council passed a recommendation from its Executive Committee that requires high school students from British Columbia who are seeking admission to this University to have successfully completed five matriculation subjects (as opposed to the previous four).

Current enrolment figures of approximately 24,000 full-time students

and approximately 4,000 part-time students were noted. The projection is that next year's enrolment will be the same.

Highlights of the report on the University's 1984-85 operating budget included a cutback of \$5.3 million, and a proposal of entering the new year with a \$646,000 deficit. Adding this figure to the current deficit, the final figure stands at close to \$1 million. Governmental (financial) support garnered \$3,190,000 from a special fund that accounted for the increasing enrolment of the 1980s, and it was proposed that \$490,000 be allocated to the base budget.

Vice-President Leitch reminded Council that the University's objective is to have a balanced budget. The report, which notes that the University will receive operating grants in the amount of \$202,023,217 for the fiscal year ending 31 March 1985, was carried.

The Annual Report of the Committee on Admissions and Transfer was

submitted and accepted, as was the Annual Report of the Conference Funds Committee. The subject of merit increments that are awarded to professors on the basis of their teaching skills, research, community involvement and professional activity was raised during the Annual Report of the General Salaries and Promotions Committee. Vice-President Meekison assured GFC that the increments are not awarded on the basis of the cost of living increase, but on the merits of items listed above.

The report was approved.

The submission of approval mechanisms for changes to existing programs in the Faculty of Graduate Studies and Research was accepted, on the condition that program changes be circulated to interested staff in the same manner as all course changes. Major program changes will first be approved by the FGSR Council and forwarded to the Vice-President (Academic) who could either approve the changes or direct the proposal to ADC and GFC.□

Position Freeze Statement

On 21 November, President Horowitz announced a freeze on the filling of all vacant continuing positions, academic and non-academic, which exist now or which occur during the period the freeze is operative. A statement from Vice-President (Finance and Administration) Leitch says that "current projections of our year-end position and of the budgetary situation for the next fiscal year make it clear that, under any likely scenario, the University is facing further significant reductions in operations, including elimination of academic and non-academic positions. The freeze will create some flexibility to respond to this reduction in real resources and will be in effect for as long as is necessary to have available more definitive data on the upcoming year."

According to Mr. Leitch, the freeze will apply to full and part-time, academic and non-academic positions,

where paid from funds in major accounts 30 and 33 at budget level 10, 18 and 1940. "The freeze will include positions where recruitment activity is in process except where a clear commitment has been made to a specific individual prior to the freeze coming into effect at noon on 21 November. Where casual, hourly or temporary (hourly or salaried), appointments are considered as an interim measure to meet workload commitments, their appointment period should not extend beyond 31 March 1985. For appointments related to the academic year (e.g., sessional lecturers, readers, markers, demonstrators, laboratory instructors), commitments should not extend beyond 31 May 1985."

At this time it is not intended that the freeze should interfere with the normal transfer of funds between salary accounts or the year-end carry forward program.□

PACID Announces First Short-Term Scholarship Recipients

Eight individuals from developing countries have been selected by the President's Advisory Committee on International Development (PACID) as the first recipients of the University of Alberta Short-Term Scholarship Support for Non-Degree Students and Scholars from Developing Countries.

The recipients will receive financial support to enable them to complete a short-term program designed to further develop their skills in their chosen profession. Six people from China will study on campus for eight months starting in January. They are: K. Qu (English); J. Tan (Zoology); X. Jiang (Pathology); S. Zhang (Zoology); S. Chen (Mathematics); and S. Tang (Electrical Engineering). The remaining two individuals are F. Burnett of St. Lucia, who has been on campus since September and will remain for eight months to study Pharmacy, and R.A. Balogun who will arrive during the summer of 1985 from Nigeria to

join students in Entomology.

The special scholarship, announced last August, is funded by the University's Endowment Fund for the Future. It exists for the benefit of students who will be at the University for less than 12 months. Students eligible for the special one-time allocation may either be registered as special students or not registered, but are students following a pre-arranged program on an individual basis.

The level of support extended varies but may include airfare, ground travel, tuition fees, food and accommodation. Once an individual has been granted a scholarship, funds are transferred to the Briefing Centre and all disbursements are handled by the Centre. Proposals are received on a continuing basis and monies will be disbursed until the fund (\$100,000 was set aside for the pilot project) is exhausted.□

Stadium Car Park Renovations on Schedule

The contract for the renovation of Stadium Car Park was awarded in early November and work has been under way since then. The work to date has been in the form of ordering materials, notably the steel for fabrication of beams, and preparing the existing main girders to receive the new steel beams. In order to prepare the girders, some 18,000 holes had to be

marked and drilled. This work is nicely under way.

The steel has arrived in Edmonton and the fabrication of the steel beams is imminent. They are slated for installation on or about 15 December.

All things being equal, Stadium Car Park will be handed over to Parking Services on 15 February.□

Bell-Northern Research Increases Funding for Fiber Optics Research

On 29 November, Bell-Northern Research (BNR) announced a grant of \$40,000 to the University of Alberta for fiber optics research.

The research is being conducted by George Cormack, Professor of Electrical Engineering. This brings to \$80,000 the funding that BNR has committed to this project over the last two years.

In announcing the funding, Jan Conradi, Manager, Optical Transmission Technology, BNR Edmonton, said, "This grant is for fundamental fiber optic research that will help us to build an information base from

which we can determine technology directions and applications for the next generation of optical communications systems." Fiber optics research at the University of Alberta is part of BNR's cooperative programs with the academic sector, added Dr. Conradi. "The research will examine coherent optical transmission—the use of light as a modulated carrier of communications signals by shifting the frequency of the light signal."

In current fiber optic telecommunication systems, a laser sends voice, data, or image communication signals, in the form of light pulses, through a hair-thin glass fiber to an optical detector. This is accomplished by turning the laser on and off several hundred million times per second—a technique by which BNR has demonstrated the capacity to send more than 10,000 simultaneous telephone conversations over a single optical fiber.

The new coherent optical transmission technology has the potential to eventually increase this capacity 100,000 times.

BNR's Edmonton lab develops the electronic systems for fiber optic communication systems manufactured and marketed worldwide by the optical systems division of Northern Telecom Canada Limited. □

people

Lubomyr Y. Luciuk (Geography) has taken up the Governor General Edward Schreyer Post-doctoral Fellowship in Ukrainian Studies and moved to the University of Toronto. While in Toronto Dr. Luciuk will also serve as a Fellow of the Chair of Ukrainian Studies, a Fellow of the Ethnic and Immigration Research Program at the University of Toronto and an Adjunct Professor of the Refugee Documentation Project at York University.

Paul Hagler and Ron Fahey (Speech Pathology and Audiology) presented a paper entitled "Effect of providing supervisors with normative statistics before student evaluation" and Einer Boberg presented a paper entitled "Some clinical successes and failures: Possible relationships to CNS functions" at the annual convention of the American Speech-Language-Hearing Association in San Francisco, 16 to 19 November.

Memoirs of God by Clement Leibovitz (Computing Services) has just been published by Lone Pine Publishers, Edmonton. The book, among others, will be the object of a course on modern fiction at the State University of Colorado.

service information

All information to be included in this column must reach the Office of Community Relations by 9 a.m. the Thursday prior to publication.

Coming Events

Lectures and Seminars

Alberta Heritage Foundation For Medical Research

7 December, 11 a.m. Milton Hearn, Department of Medicine, University of Melbourne, "Application of Modern Liquid Chromatographic Methods in Peptide and Protein Purification: Current Status

and Future Prospects." 2-27 Medical Sciences Building.

Entomology

6 December, 4 p.m. B.S. Heming, "The Mechanics of Sperm Use by Female Velvet Water Bugs (Hemiptera, Hebridae)" or "How Do Little Mothers Cope with Big Eggs?" 245 Earth Sciences Building.

13 December, 4 p.m. George Boyan, "Audition and Behaviour in Insects." 245 Earth Sciences Building.

Medicine

7 December, 8 a.m. R. Cherry, N. Conrad, F. Jackson and A.B. McCarten, "Antibiotics Associated with Pseudomembranous Colitis and Diarrhea." 2-115 Clinical Sciences Building

10 December, 8 a.m. L. McGann and J.M. Turc, "Cryo-Preservation of Tissues for Transplantation" 2-115 Clinical Sciences Building.

10 December, 4 p.m. J.J. Battista, "Optimizing Radiation Therapy with Digital Maps of Tissue Density and Metabolism." Auditorium, Cross Cancer Institute.

14 December, 8 a.m. J. Vestrup, University of British Columbia, "Hyperbaric Oxygen Therapy in Anaerobic Infections." 2-115 Clinical Sciences Building.

Geography

7 December, 2 p.m. John England, "The Innuition Sea." 3-36 Tory Building.

Boreal Institute for Northern Studies Northern Biological Research

7 December, noon. Nick Lunn, "Effects of a Supplemental Food Source on Polar Bear Populations." M-137 Biological Sciences Building.

Canadian Institute of Ukrainian Studies

14 December, 7:30 p.m. Bohdan Krawchenko, "Soviet Ukraine During the Second World War." Heritage Lounge, Athabasca Hall.

Music

Department of Music

9 December, 3 p.m. Edmonton Youth Orchestra—Orchestra I. Conductor: Michael Massey. Tickets—\$4 regular, \$2 seniors/students. Convocation Hall.

Exhibitions

Ring House Gallery

Until 21 December. "Peace Earth Peace." An international correspondence/mail art exhibition.

Rutherford House

Until 23 December, noon to 5 p.m. A Celebration of Christmas Past—enjoy the atmosphere and activities of an earlier Christmas era.

Films

Boreal Circle -

11 December, 8 p.m. Feature film "Magic in the Sky" plus "Northern Games" and "The Hunters" CW-410 Biological Sciences Building.

Germanic Languages

19 December, 7:30 p.m. "Rheingold" (1977). 17 Arts Building.

Radio and Television

Radio

Programs broadcast on CKUA radio 580 AM and 94.9 FM.

8 December, 7 p.m. University Concert Hall presents a duo-piano recital with guest Alexandra Munn.

12 December, 7:30 p.m. International Development—"The Multinationals."

Television

Programs broadcast on ETV Q-9 and Shaw-13.

12 December, 7:30 p.m. Canada, The World and The Future—Michael Asch, "Self Government for Aboriginal Peoples—Political Rights Unfulfilled." 12 December, 8 p.m. Canada, The World and The Future—James Gallagher, "Job Training vs. Education: A Dilemma?"

Sports

Basketball

6 December, 7 p.m. Pandas vs. Brandon. Varsity Gym.

28 to 30 December. Panda After Xmas Tournament. Varsity Gym.

Swimming

8 December, 2 p.m. Golden Bears and Pandas vs. Alumni. West Pool.

Matters of Faith

Catholic Campus Ministry

St. Joseph's College Mass Time, September to April. Monday, Wednesday, Friday - 7:30 a.m., 12:10 and 4:30 p.m.; Tuesday, Thursday - 7:30 a.m., 12:30 and 4:30 p.m.; Saturday, 4:30 p.m.; Sunday - 9:30 and 11 a.m., 4 and 8 p.m.

Anglican - Presbyterian - United Chaplaincy

Bible study on Gospel of John—Tuesday, noon; Anglican Eucharist—Thursday, noon. Both in Meditation Room, 158A SUB.

Lutheran Campus Ministry

Sunday Worship with Eucharist - 10:30 a.m., Meditation Room.

Thursday Evening Worship - 7:30 p.m., Lutheran Student Centre, 11122 86 Avenue.

Noon Hour Bible Study - Wednesdays at noon, Meditation Room.

Faith Share

Mondays, 7 to 9 p.m. Group singing, sharing, teachings and discussions. All welcome. Contact Kim at 436-6346 or Curt at 433-9377 for further information. St. Joseph's Chapel.

Theatre

Studio Theatre

Until 8 December. "Our Town" by Thornton Wilder. For tickets or further information, call 432-2271.

Non-Credit Courses

Computing Services

MTS (Michigan Terminal System)

MTS and Editor Fundamentals (Prerequisite)
AJ510 Operation and Visual Editing (Prerequisite)
MTS Overview (Prerequisite)

TEXTFORM

Introduction to Text Formatting (Prerequisite)

SPIRES

Introduction to SPIRES (Prerequisite)
Advanced SPIRES

Graphics

Integrated Graphics Overview (IG)

Statistics

Data Preparation for Statistical Packages (Prerequisite)
Introduction to SPSSx
SPSSx Conversion
Introduction to BMDP
Introduction to MIDAS
Introduction to MINITAB
Introduction to TROLL

Microcomputers

Introduction to the IBM PC
Introduction to the Personal Editor
Introduction to MultiMate
Advanced MultiMate

The above courses are offered regularly through the day with limited evening selections. Registration will be taken over the phone for all courses except evening courses. These may be made in person at 352 General Services Building, or by mail. Payment must accompany registration for all evening courses. Please make cheques payable to the University of Alberta.

Waiting List Courses

The following courses are only offered when a sufficient number of people express an interest.

Advanced Text Formatting
Courier Operation and Visual Editing
Introduction to Plotting
Introduction to Programming
Introduction to Typesetting
Introduction to APL
Introduction to the Array Processor
Introduction to APAL
Introduction to Clustan
Introduction to TSP
Introduction to Osiris
Introduction to Tell-A-Graf

For more information on any of the courses listed above, telephone the Training Coordinator at 432-2511, between 8 a.m. and 4 p.m., weekdays.

Faculty of Extension

Certificate Programmes

For further information on the programmes listed below, telephone 432-5545 or 432-3027 between 8:30 a.m. and 4:30 p.m., Monday to Friday.
Management Development
Personnel Administration
Computers and Business Data Processing
Industrial Security Management
Purchasing Management Development

Land Use Planning Studies

For further information on the courses listed below, telephone 432-2912.
Planning Commercial and Industrial Areas
Introduction to Small Towns
Regional Planning
Plans and Processes
Survey and Analysis (Field Trip)

Architecture

For further information on the course listed below, telephone 432-2912.
Managing an Architectural Practice

Industrial Courses

For further information on the courses listed below, telephone 432-2912.
Corrosion Control in Steam Systems
Maintenance Management

Liberal Studies

Call 432-3033 for information on Winter/Spring course offerings.
One-Day French Immersion

PLATO Learning Centre

'Computer-Taught' courses can be taken any time at your convenience. For further information on this unique way of learning, telephone 432-2444.
Introduction—Keyboarding, Word Processing
Excellence in Administrative Assistant/Secretarial Work
Introduction—Computers, Data Processing
Introduction to Programming—BASIC, PASCAL, FORTRAN
Time—Resource, Financial or Planning Management

Adult Education Training

For information on the following courses, telephone 432-5050.
Using Audiovisual Media in Adult Education. The Informed Approach
Leading Adult Group Learning Experiences
Writing and Producing Effective Brochures for Continuing Education Programs

Devonian Botanic Garden

For a detailed brochure and registration form, telephone 987-3054.
Introduction to Kitchen Cosmetics and Simple Remedies

Notices

Call Ahead for Parking

Departments are reminded of the need to reserve parking space in advance for meetings, seminars, visitors, guests, etc. Due to the current closure of Stadium Car Park, it may not be possible to provide parking for groups in the areas requested.

Kindly telephone Parking Services at 432-2236 for further information.

Capital Equipment Purchases

A program has been developed to provide the carry-over of unspent capital equipment funds into the next budget year. This carry-over will be limited to the lesser of 15 percent of the departmental capital equipment budget or \$50,000. Where the balance of unexpended funds is sufficient, commitments incurred by purchase orders placed before 31 December will be allocated a carry-over equivalent to the amount of the commitment.

Where the balance of your unexpended and/or uncommitted capital equipment budget is currently in excess of the foregoing limits, you are urged to place purchase orders for your further needs now to help ensure that delivery is effected before 31 March 1985. The program will not provide a carry-over in relation to commitments by purchase orders placed later than 31 December other than in instances where a well documented justification of circumstances merits exception. Application for exemption should be submitted to the attention of D. Grover, Office of the Comptroller. Final approval on capital equipment carry-overs remains with the Associate Vice-President (Facilities and Services), J. B. McQuitty.

Unexpended funds in excess of the limiting factors will lapse into a Capital Equipment Contingency Account.

Surplus Equipment

The equipment appearing in this column is available only to University Departments with University Administered Funds. For further information about the purchase of equipment or the disposal of any of your department's surplus equipment, contact Jody Brookwell or Roy Bennett, telephone 432-3208.

For Sale: (1) Perkin 290B Atomic Absorption Spectrometer
Telephone A. Koenig, Chemical Engineering, 432-5159

(1) Amsco Sterilizer
Telephone Dennis, Genetics, 432-3606

Positions Vacant

The University of Alberta is an equal opportunity employer but, in accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

Sessional Lecturer, Department of Educational Foundations

Applications are invited for a four-month sessional appointment, 1 January 1985 to 30 April 1985, in the Department of Educational Foundations, University of Alberta. Applicants should have proven ability or demonstrated potential to teach Educational Foundations 341 "Concepts of Childhood in History." The salary for this position ranges from \$8,000 to \$11,400.

Applications, accompanied by a curriculum vitae showing qualifications and related experience, should be sent no later than 17 December 1984 to Dr. R. J. Carney, Chairman, Department of Educational Foundations, Faculty of Education, 5-109 Education North Building, University of Alberta, Edmonton, Alberta T6G 2G5.

Non-Academic Positions

A hiring freeze was put in place on 21 November 1984. This affects all Non-Academic vacancies previously advertised with the exception of positions funded from Trust/Research accounts and temporary positions.

Positions available as of 30 November 1984.

Clerk Steno III (Term to March 31/85)
(\$1,294-\$1,561) Pathology

Secretary (Term to March 31/85) (\$1,442-\$1,766)
Office of Research Services
Secretary (Term to March 31/85) (\$1,442-\$1,766)
Centre for the Study of Mental Retardation
Administrative Clerk (Term to March 31/85) (\$1,442-\$1,766) Extension (Local Government Studies)
Public Relations/Publications Assistant II (Term to March 31/85) (\$1,625-\$2,003) Housing and Food Services
Animal Assistant I (\$1,161-\$1,390) Provincial Laboratory
Chemical Technician II (\$1,697-\$2,092) Civil Engineering
Biology Technologist I (Trust) (\$1,697-\$2,092) Zoology
Technologist I (Trust) (\$1,697-\$2,092) Medicine (Foods and Nutrition)
Biochemistry Technologist I (Trust) (\$1,697-\$2,092) Cancer Research Group
Nurse Practitioner (Trust) (\$2,486-\$3,009) Paediatrics
Technologist IV (Trust) (\$2,486-\$3,099) Health Services Administration and Community Medicine

For vacant library positions, please contact the Library Personnel Office, Basement, Cameron Library, telephone 432-3339.

Advertisements

Advertisements must reach the Editor by 3 p.m. on the Thursday prior to publication date which date also serves as the deadline for cancellation of advertisements. The cost of placing advertisements is 30 cents per word with no discount for subsequent insertions. There is a maximum limit of 30 words and a minimum charge of \$1.50. Contributors' corrections will be assessed at \$1.50 for each line in which an insertion is made. Advertisements cannot be accepted over the telephone. All advertisements must be paid for in full at the time of their submission.

Accommodations available

Private sale - Parkdale. Attractive, three-bedroom bungalow. Hardwood floors. Fireplace. Brick patio. Landscaped garden. Appliances. Finished basement. \$76,000. 439-5318. leave message

For sale - By owner. Immaculate, one-bedroom condominium, overlooking the river valley. Only four minutes from campus \$49,900. For further details, please call Joan, 487-3912, evenings.

Sale - Belgravia. Just listed 2,888', split-level, park-like setting. Family floor plan, main floor family room and laundry, nanny's suite, gleaming hardwood floors. Denise Rout, 435-6355, 436-5250. Spencer's.

Sale - Riverbend condominium. \$74,900. Best price in complex. Popular building, exceptional pool. Two bedrooms, two bathrooms, all appliances, underground parking. Denise Rout, 435-6355, 436-5250. Spencer's.

Roommate wanted - Share Riverbend townhome with non-smoker. Large bedroom, fireplace. Quiet surroundings. Five minutes from University. 435-6355.

Share - Mature female share house with same, near Southgate. Good buses. 434-9661, 435-6731.

Sale - Easy access University. Sunny, well-maintained bungalow. Hardwood floors. Revenue suite, basement. Tenant will stay if needed \$64,900, offers? Call Joyce Byrne, 435-6064, 436-5250. Spencer's.

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